CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

This material contains information affecting the National Defense of the United States within the meaning of the Espienage Laws, Title 18, U.S.C. Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

COUNTRY	Polani	25X1
COUNTRY	Survey of the M.S. AIPHA ZAMBESI	DATE DISTR. 13 December 1954
SUBJECT	Sirvey of the M.S. All In Minds	NO. OF PAGES 7
		REQUIREMENT NO. RD 25X1
DATE OF INFO.		REFERENCES
PLACE ACQUIRED		REI EREI (CEO
	THE SOURCE EVALUATIONS IN THIS REPO THE APPRAISAL OF CONTENT IS T (FOR KEY SEE REVERSE)	ENTATIVE.
		25X1
Des	cription of the Ship	
4. The	ship was built	as an auxiliary aircraft 25X1
	. l ll and collect MAC charge impropant	garden in carriers and one decors
โกส	no hatchways, cargo charging and disc in elevator pipes through side chamber	harging was carried out by means of
	• •	25X1
5.		
	SECRET/U.S. OFFICIAL	ONIX
STATE X	ARMY X NAVY EV X AIR X	S! AEC OHR EV X
	istribution indicated by "X"; field distribution by "#".)	



SECRET/U.S. OFFICIALS ONLY

-3-

20,711		25X1
--------	--	------

blower of the rain engine at a standstill and in consequence her recent speed has been only 55 knots. The danaged air blower must be exchanged; a new one was inlivered aboard. In general the engine room is in a very maglected state. After conversion in 1950 the two original oil-fired boildness remained, the starboard boiler being additionally fired with the exhaust gas of the rain engine. The boilers are necessary for producing steam for driving a number of auxiliary equipment required both at sea and in port. In 1953 some part of this equipment was exchanged for electrically driven tackle (four cranes, a feed pump for crade oil, a pump for general use, and a nump for cooling the condensing plant), but still many steam-driven gears	25X1
remain.	

14. The hoilers were in very roor condition, which, in view of the requirements 25X1

consistent of scrapping the bollers and installing electric boilers. This will 25X1

give rise to the necessity of increasing the number of motor generators. They may postpone this decision for one voyage at the most, but it is doubtful if in her present condition she will make it without serious trouble.

- 15. The following auxiliary gears and tackle are steam-driven at the moment:
 - a. On deck: Anchor windlass, two cargo winches at the rear of Hold No. 2, poop-deck windlass for raneuvering, ship's whistle, fire extinguisher in holds, heating of hot-water tanks.
 - b. In the Engine Room: I current generator, ballast pump, 2 compressor pumps, driving gear (obracarka) of the main engine; also gear for servicing boilers and condensation of feed water, which will be removed in the course of electrification of the ship.

From the above it can be seen that both the ship's construction and propulsion are "combined" and produce an unsatisfactory state of affairs.

- 16. The present owner has to face two problems:
 - a. The complete electrification and repair of the engine and gears, to be decided almost immediately, at a cost of £35,000 to £40,000, and to be done within six weeks.
 - b. In view of the approachin classification, removal of the defects of the hull.
- 17. Surming up the results of the survey, the ship is not worth buying for Polish purposes as her condition would not assure adequate service. Four years of sorvice after conversion have already produced troubles which will continue to increase unless her construction is strengthened. This will be a great expense and practically not worth while.

 The would be necessary to 25X1 remove the bridge and engine shaft superstructures in order to change the weak plates on the decks in the center of the ship; probably also the bears and knees joining them to the frames; in addition, to strengthen the belts of side plating along the decks and to change the size and type of hatch coamings.
- 18. In view of the fact that the original hull of the aircraft carrier was built under the supervision and that the plan of her 25X1 conversion in 1950 was also approved by them, the ship has been classed \$100 A l. This classification, however, is one of those rare instances of an accumulation of circumstances, the main error being the approval of the unsatisfactory conversion plan in 1950.

SECR T/U.S. OFFICIALS ONLY

-4-

25X1

Technical Description of the Ship in Her Present Condition

19. The ship has two decks, the upper deck complete, the lower as a 'tween-decks, not water-tight, with openings to the holds below. She has seven cargo holds, seven hatches, the 'tween-decks divided into four compartments.

Iength between perpendiculars	42510"
Breadth overall 58'0" Breadth moulded	571911
Depth moulded to upper deck	3811"
Draught to summer mark in salt water	2712] 11
Height of freeboard	11'0 3/4"
Draught without load	910}"
Displacement tonnage	4,160 tons
Gross tonnage	7,489.93 GRT
Net tonnage	4,421 NRT
Dealweight when down to summer mark	10,103 tons

- 20. The original construction of the hull was riveted but after conversion riveting was combined with welding on the main deck; there are many welded patches. The construction of the main deck beams in the rear holds is also combined, some transverse, some longitudinal and transverse.
- 21. The main deck, stretching along the whole length of the ship, is without bulwarks, and loes not rise at the forward end. There is no timber flooring. The hatchways of holds Nos. 1 and 2 are between the forecastle and the navigating bridge superstructure; those of holds Nos. 3 and 4 between the bridge and engine superstructures; and behind the latter are the hatchways of holds Nos. 5, 6 and 7.

a. Cubic capacity of the holds:

		Grain	Bales	
Hold No. 1		42,378	37,980	cu.ft.
2		101,963	94,826	
3		78,499	73,056	
4		38,614	35,108	
5	(or deep tank)	42,589	39,265	
6		71,413	66,025	
7		41,165	36,5 80	_
Total		416,621	383,440	cu.ft.

SECRET/U.S. OFFICIALS ONLY

-5-

b. Cubic capacity of the 'tween-decks:

đ.

	Grain	Bales
From forecastle to engine room 'tween-dacks No. 1	17,820	16,420
From forecastle to engine room tween-decks No. 2	26,116	23,756
From forecastle to engine room tween-decks No. 3	31,482	29,002
From engine room to poop tween-decks No. 4	67,567	61,538
Total	142,985	130,716 cu.ft.
Total capacity of holds	573,103	526,252 cu.ft.
and 'tween-decks	-	

c. Floors in holds without timbering. Dunnage along the boards (40% missing).

Rallast tanks		Crude oil tanks	
Forepeak	94 ton s	Tank No. 2	270 tons
Tank No. 1	94	Tank No. 3	419
After peak	204	Tanks No. 4	128
Hold No. 5, deep	1,297	(right and left) Tank No. 6	334
tank Tanks at sides of shaft in hold	220	Fuel drums in engine room	24
No. 7	• ·· ··································		
Total	3,079 tons		1,175 tons

Lubricating oil tanks (port and starboard) in the double bottom total 22 tons.

Fresh water tanks at the sides of the shaft in hold No. 7 103 tons

Tank No. 5 in the double bottom 48

Total 151

e. Dimensions of hatchways on the main deck and tackle

Hold No. 1. 24'9" by 20'; 2 booms (derricks) 5t., 2 AEG electric winches 21t.

Hold No. 2. 30'2" by 23'; 4 booms 5t., 2 Clarke Chapman electric winches 3t., 2 steam winches (2 booms dismantled and stored).

Hold No. 3. 25'10" by 23'; 2 booms 5t., 2 Clarke Chapman electric winches 3t.

Hold No. 4. 10'4" by 26'; 2 booms 5t., 2 Clarke Chapman electric winches 3t.

Hold No. 5. 10'4" by 25'; 2 booms 5t., 2 Clarke Chapman electric winches 3t.

Hold No. 6. 31'0" by 25'; 2 booms 5t., 2 Clarke Chapman electric winches 3t.

Hold No. 7. 31'0" by 25'; 2 booms 5t., 2 AEG electric winches 2.5t.

SECRET/U.S. OFFICIALS ONLY

-6-

25 X 1

The hatchways are provided with iron covers. All the booms are operated from derrick posts. The derrick posts between holds Nos. 1 and 2, and between holds Nos. 6 and 7 are joined at the top with grating (kratownica) and extended to form masts for navigating lights.

Dimensions of hatchways on the lower deck

Hold No. 1 24'9" by 20'

Hold No. 2 30'2" by 27'

Hold No. 3 25'10" by 27'

Hold No. 4 10'4" by 27'

Hold No. 5 two watertight hatchways to deep tanks 10'4" by 11'5"

Hold No. 6 31'0" by 27'

Hold No. 7 33'7" by 25'

The hatchways are covered with wooden hatch-boards. The deck is not water-tight. On this deck there are 15 steel chambers for leading elevator pipes into the lower holds.

- 22. Accommodations and store-rooms: Under the foredeck two store-rooms for the boatswain, one above the other. Anchor chamber. Forepeak. Between holds Nos. 1 and 2, a small superstructure containing a store-room. The bridge superstructure covers the whole width of the ship with two corridors as fore and aft passages. The superstructure comprises: wheelhouse; charthouse; captain's accommodation; radio station; owner's stateroom; 6 two-berth passenger cabins; officers' smoking room; radio operator's cabin; restaurant with pantry; three cabins for navigating officers; steward's cabin; sick bay. These are all above the main deck. The accommodations in the 'tween-decks include single cabins for carpenter, cool, boatswain and their mess; 2 two-berth cabins for four boys; a cabin for the second cook and second steward; and their mess. There is a sufficient number of bathrooms and water closets for the above. In addition on the 'tween-decks there is a three-chamber food refrigerator with a compartment for a compressor pump.
- 23. Superstructure around the engine shaft: On the main deck there are seven cabins for engineer officers, and an electrician's cabin. An electric cooker forward. On the 'tween-decks there are three two-berth cabins for six motormen; 3 four-berth cabins for 12 seamen; seamen's mess; motormen's mess. A sufficient number of water closets and wash-stands. Total accommodation: 12 passengers and 40 crew members. The poop superstructure behind hold No. 7 is a store-room. The spare propellor is above it.

24.	25)	(1

- 25. Lifeboats: Four, two on each board of the engine superstructure, accommodating 76 persons on the port side, 78 on starboard. Gravitational davits.
- 26. Propulsion: Main engine: steam-driven Burmeister (Kincaid License) 4-stroke 6-cylinder engine of 3,300 B.H.P., obtainable at 110 rev/min; diameter of cylinder 740 mm; stroke 1,500 mm. The blower driven by the main engine is

25X1

-7-

joined for suction effect. Salt-water-cooled cylinder jackets. Oil-cooled pistons. The engine irives two twin pumps; one for cooling cylinders, the other for pistons. Maximum speed in favorable conditions, 11 knots. Michell's thrust bearing. In the tunnel, an ordinary shaft bearing for the propeller shaft. Two Allen 5-cylinder engines of 185 B.H.P., cylinder diameter 300 mm and stroke, 500 mm. 125 kw.220v. D.C. generator. Two barrel boilers; two with fire boxes. The starboard boiler is fired with exhaust gas from the main engine; the others with crude oil.

- 27. Boiler Gear: Two 1-cylinder feed pumps; steam condenser; circulating pump driven by 1-cylinder small steam engine; hot-water tank with float governor; evaporator; air blower driven by a small steam engine; gears for firing with crude oil; one 125 kw. steam-driven current generator accommodated in the wheelhouse; two compressor pumps driven by 1-cylinder steam engines.
- 28. Ballast Pump: 2-cylinder steam-criven standing pump.
- 29. Pump for Lubricating Oil: 2-cylinder steam-driven standing pump.
- 30. Two vertical electric pumps for salt water for the engine, for general use and fire-extinguishing 25X1
- 31. Two small vertical electric pumps for salt and fresh water; cil-cooling plant; one air bottle; two small air bottles for auxiliary engines. Two centrifuges (centrifugal separators), one for crude cil, the other for lubricating cil. Electric fuel feed pump. One electric cil pump. Lathe, grinder and drilling rachine. Store, and four fuel drums (two for crude cil for main engine and two for boilers).
- 32. The engine is dirty and neglected. There is a general lack of proper maintenance. The first and second engineers were discharged immediately upon arrival of the ship. The new first engineer knew nothing about the ship, fuel consumption, etc; moreover, in view of the condition of the boilers, for all practical purposes fit for scrap, and the engine working without a blower, any particulars about consumption, etc. would only have been misleading.

25**X**1